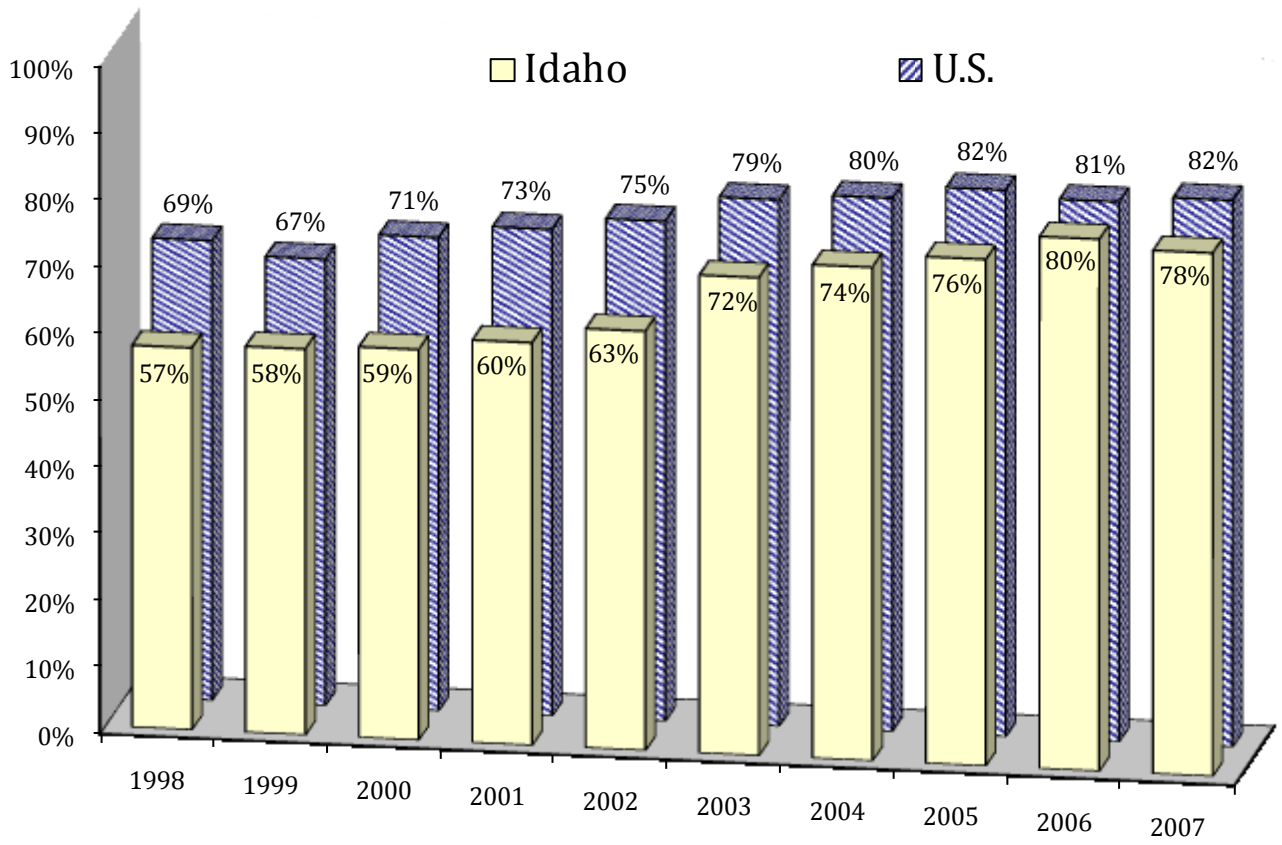
Safety Restraint Usage

Idaho's seat belt use law, effective July 1, 1986, requires seat belt use for front seat passengers and drivers, regardless of residency, in vehicles with a gross vehicle weight of 8,000 pounds or less that were manufactured with safety belts. The law is a "secondary" law and can only be enforced when someone is stopped for another traffic violation. The law was updated July 1, 2003. It now covers all seating positions and has enhanced penalties for drivers less than 18 years of age. Drivers and occupants, 18 years of age and older, receive separate tickets.

Figure 13 depicts observed seat belt use by year for both Idaho and the U.S. The figures are the observed rates for persons in passenger cars, pickups, sport utility vehicles, and vans, which make up 89% of the vehicles involved in motor vehicle crashes. The U.S. usage rate comes from the National Occupant Protection Use Survey (NOPUS) and the mini NOPUS, which are done alternately every year.

Figure 13
Observed Seat Belt Usage – Idaho vs. U.S.: 1998 - 2007



The methodology for national seat belt surveys differs from that of Idaho and does not include any observation sites in Idaho.

Observational Seat Belt Survey Results

Table 27 shows the observed shoulder harness seat belt use by county.

Table 27
Observed Seat Belt Use by County: 2003-2007

	2003	2004	2005	2006	2007	Change 2006-2007	Avg. Change 2003-2006
Ada	81.0%	85.3%	89.9%	93.0%	90.5%	-2.6%	4.7%
Bannock	55.7%	61.2%	58.7%	66.9%	65.1%	-2.7%	6.6%
Bingham	47.4%	45.2%	48.7%	53.9%	54.8%	1.7%	4.6%
Blaine	68.7%	68.6%	66.9%	66.6%	66.9%	0.5%	-1.0%
Bonner	74.4%	75.3%	73.0%	82.5%	89.8%	8.8%	3.7%
Bonneville	59.4%	72.4%	70.7%	66.3%	60.9%	-8.1%	4.4%
Canyon	75.1%	77.9%	79.2%	80.5%	82.9%	3.1%	2.3%
Cassia	53.9%	41.8%	66.9%	58.9%	68.1%	15.5%	8.5%
Elmore	67.9%	70.2%	68.3%	70.8%	72.8%	2.8%	1.4%
Kootenai	78.6%	76.8%	78.5%	89.0%	86.3%	-3.0%	4.4%
Latah	74.2%	71.9%	78.6%	79.4%	76.7%	-3.4%	2.4%
Madison	58.8%	58.0%	62.2%	65.3%	59.0%	-9.7%	3.6%
Minidoka	55.6%	54.2%	75.3%	70.4%	66.7%	-5.3%	10.0%
Nez Perce	74.4%	77.6%	82.5%	85.1%	84.6%	-0.6%	4.6%
Payette	71.9%	76.1%	75.4%	86.9%	83.4%	-4.1%	6.7%
Twin Falls	63.0%	73.2%	74.5%	68.4%	71.1%	4.0%	3.3%
Statewide	**71.7%**	**74.0%**	**76.0%**	**79.8%**	**78.5%**	**-1.6%**	**3.6%**

The Office of Highway Safety evaluates compliance rates through analysis of crash data and statewide observational surveys of seat belt use. Observational surveys are conducted by observing shoulder harness use or non-use. The observational survey is a representative sample of the state and does not include all counties.

Table 28 shows the observed seat belt use for the Idaho Transportation Department (ITD) districts[4] by vehicle type. District 1 (northern Idaho) had the highest overall usage at 87.3 %, while district 6 (eastern Idaho) had the overall lowest usage at 60.0%.

Table 28
Idaho Safety Belt Observation Survey: 2007 – Usage by Vehicle Type

ITD District	Passenger Cars	Vans and Sport Utility Vehicles	Pickup Trucks	All Vehicles
1	89.0%	90.6%	81.4%	87.3%
2	85.7%	86.3%	71.8%	81.7%
3	88.1%	90.5%	80.5%	87.0%
4	74.6%	79.0%	53.9%	68.5%
5	65.1%	70.8%	50.9%	62.2%
6	65.9%	63.4%	46.6%	60.0%
Statewide	**81.2%**	**83.6%**	**68.6%**	**78.5%**

Usage rates for the occupants of pickup trucks continue to be significantly lower than usage rates for other types of passenger vehicles. The usage rate for pickup truck occupants in 2006 ranged from a high of 81.4% in District 1 (northern Idaho) to a low of 46.6% in District 6 (eastern Idaho).

Seat belt usage varied by the type of roadway the vehicles were traveling on. It ranged from a high of 92.4% on urban interstates to a low of 67.6% on rural minor arterials.

There was no statistically significant difference between urban and rural sites. Usage on urban roadways was 78.7%, while usage on rural roadways was 78.4%. There was also no statistically significant difference between major and minor roadways. Usage on major roadways was 78.7% while usage on minor roadways was 78.4%. Major roads were defined as interstates and principal arterials. Minor roads were comprised of the rest of the roadway functional classifications.

Self-Reported Seat Belt Usage Results

Table 29 shows the self-reported seat belt use for people, ages 7 and older (ages 4 and older prior to 2005), in passenger cars, pickups, sport utility vehicles, and vans that were killed or seriously injured. The child passenger safety seat law was upgraded in 2005 to include children age 6 and younger. Research has indicated there is a tendency for persons involved in crashes to falsely report compliance with the seat belt law and thus, self-reported use tends to overstate actual use[5]. Seat belt use by severely or fatally injured occupants can be more directly assessed by law enforcement officers or emergency medical personnel, and is therefore, more reliable.

Table 29
Self-Reported Seat Belt Use : 2003-2007
Age 7 and Older in Passenger Cars, Pickups, Sport Utility Vehicles, and Vans

Injury Type	2003	2004	2005	2006	2007	Change 2006-2007	Avg. Change 2003-2006
Fatalities -Restraints Used	37.2%	42.4%	40.0%	38.8%	34.8%	-10.4%	1.8%
Serious Injuries -Restraint Used	58.4%	64.7%	64.7%	67.6%	66.1%	-2.2%	5.1%

Of the 187 passenger motor vehicle occupants killed in 2007, only 65 were using seat belts. The National Highway Traffic Safety Administration estimates seat belts are 50% effective in preventing fatalities and serious injuries. By this estimate, we can deduce that 65 lives were saved in 2007 by seat belt usage. An additional 57 lives could have been saved if everyone had buckled up.

Costs of Injuries by Safety Restraint Use

Table 30
2007 Costs of Injuries
Persons Using Safety Restraints versus Persons Not Using Safety Restraints
Age 7 & Older in Passenger Cars, Pickups, Sport Utility Vehicles, and Vans

	Safety Restraints			Costs of Injuries		
Injury Type	Used	Not Used	Unknown	Used	Not Used	Unknown
Fatality	65	114	8	$377,000,000	$661,200,000	$46,400,000
Serious Injury	933	402	76	$269,492,264	$116,115,638	$21,952,210
Visible Injury	2,559	609	115	$207,032,933	$49,270,440	$9,303,942
Possible Injury	5,809	649	261	$311,524,793	$34,804,543	$13,996,896
Total				**$1,165,049,990**	**$861,390,621**	**$91,653,048**

Self-reported seat belt use is biased because of the penalties involved for not wearing a seat belt (meaning people misrepresent their belt use to avoid a ticket). While 89% of the motor vehicle occupants in crashes said they were wearing seat belts, the observational surveys show only 78% wearing seat belts. The number of people using seat belts is higher for the less severe injury categories because of this bias, but also because seat belts lessen the severity of injuries sustained in crashes. Had the occupants that were seriously injured and belted not been wearing a seat belt, they may have been killed.

Local Safety Restraint Usage

Table 31 presents self-reported restraint use rates for all motor vehicle occupants, 7 years old and older, involved in fatal and serious injury crashes for each county, for 2003 through 2007. Crash data provides an analysis of the restraint use at the local level. This information is self-reported to the investigating officer after a crash. The self-reported use is for all occupants, regardless of injury type, involved in fatal and serious injury crashes.

Table 31
Self-Reported Restraint Use in Fatal and Serious Injury Crashes by County: 2003-2007
in Passenger Cars, Pickups, Sport Utility Vehicles, and Vans

County by Population	2003	2004	2005	2006	2007	Change 2006-2007	Avg. Change 2003-2006
50,000 and over							
Ada	75.5%	83.2%	85.0%	84.8%	83.8%	-1.2%	4.1%
Bannock	72.1%	66.7%	73.5%	64.8%	73.6%	13.6%	-3.0%
Bonneville	68.5%	73.9%	63.2%	68.5%	69.4%	1.3%	0.6%
Canyon	69.5%	73.5%	79.1%	79.7%	82.2%	3.2%	4.7%
Kootenai	82.8%	80.4%	79.4%	74.3%	79.2%	6.7%	-3.5%
Twin Falls	61.6%	73.1%	82.6%	83.0%	71.2%	-14.2%	10.7%
20,000 - 49,999							
Bingham	61.0%	61.2%	58.0%	58.5%	49.5%	-15.4%	-1.3%
Blaine	60.5%	60.7%	55.3%	76.5%	40.0%	-47.7%	9.9%
Bonner	80.7%	64.8%	73.0%	63.3%	72.7%	14.8%	-6.8%
Cassia	37.7%	71.1%	65.6%	50.7%	55.1%	8.7%	19.4%
Elmore	57.4%	65.4%	69.8%	69.9%	70.1%	0.3%	6.9%
Latah	69.8%	59.2%	84.1%	63.5%	77.3%	21.8%	0.8%
Madison	62.5%	44.0%	48.0%	58.6%	42.1%	-28.2%	0.5%
Nez Perce	68.0%	83.1%	73.8%	83.5%	70.8%	-15.2%	8.1%
Payette	67.4%	74.5%	79.0%	80.4%	51.2%	-36.4%	6.2%
10,000 - 19,999							
Boundary	50.0%	85.7%	58.3%	75.8%	69.4%	-8.3%	23.1%
Franklin	56.3%	47.8%	31.8%	66.7%	55.3%	-17.1%	20.4%
Fremont	55.9%	73.0%	43.8%	66.7%	93.8%	40.6%	14.3%
Gem	71.4%	72.7%	60.0%	61.5%	69.7%	13.3%	-4.4%
Gooding	51.0%	55.9%	52.5%	43.5%	57.1%	31.4%	-4.5%
Idaho	43.8%	53.2%	75.0%	71.4%	35.5%	-50.3%	19.3%
Jefferson	59.1%	56.8%	72.0%	46.2%	57.7%	25.0%	-4.3%
Jerome	66.7%	73.6%	63.1%	57.9%	63.1%	8.9%	-4.0%
Minidoka	62.5%	66.2%	67.5%	64.7%	56.7%	-12.4%	1.3%
Owyhee	23.5%	53.1%	32.6%	64.5%	16.3%	-74.8%	61.7%
Shoshone	47.4%	76.5%	14.8%	73.3%	65.0%	-11.4%	125.3%

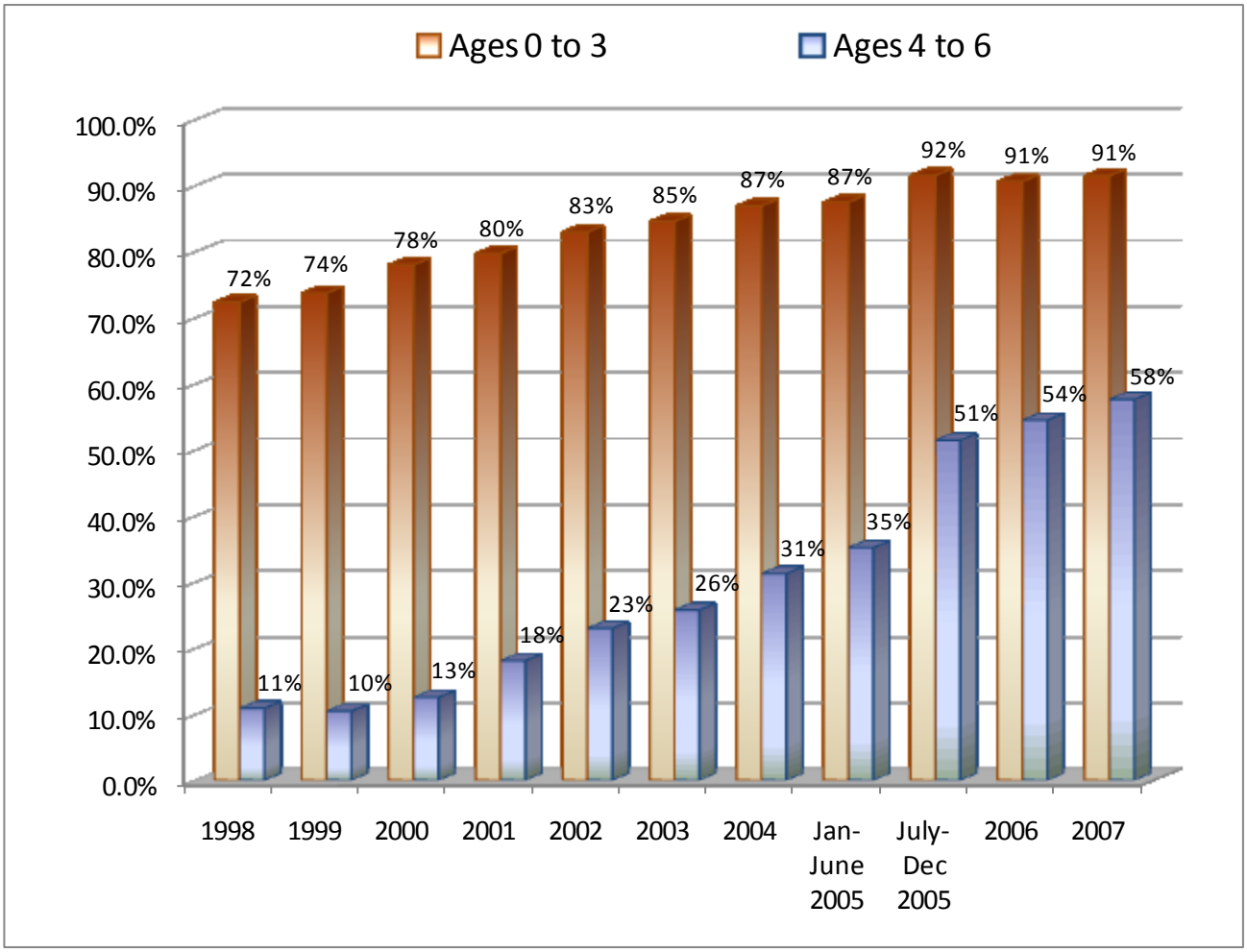
Table 31 (Continued)
Self-Reported Restraint Use in Fatal and Serious Injury Crashes by County: 2003-2007
in Passenger Cars, Pickups, Sport Utility Vehicles, and Vans

County by Population	2003	2004	2005	2006	2007	Change 2006-2007	Avg. Change 2003-2006
5,000 - 9,999							
Bear Lake	29.4%	72.7%	75.0%	50.0%	65.0%	30.0%	39.0%
Benewah	60.0%	63.2%	63.6%	63.2%	68.2%	7.9%	1.8%
Boise	64.1%	61.4%	59.1%	75.0%	77.6%	3.5%	6.3%
Caribou	21.4%	50.0%	46.7%	92.9%	0.0%	-100.0%	75.2%
Clearwater	44.4%	78.6%	66.7%	42.3%	33.3%	-21.2%	8.4%
Lemhi	53.3%	83.3%	50.0%	59.3%	63.2%	6.6%	11.6%
Power	65.0%	56.3%	52.6%	46.2%	41.7%	-9.7%	-10.7%
Teton	81.8%	0.0%	28.6%	58.3%	50.0%	-14.3%	10.9%
Valley	62.9%	60.0%	45.8%	48.2%	81.4%	69.1%	-7.7%
Washington	96.2%	33.3%	73.3%	100.0%	78.6%	-21.4%	30.3%
0 - 4,999							
Adams	58.3%	40.0%	31.3%	100.0%	38.5%	-61.5%	55.6%
Butte	71.4%	50.0%	44.4%	50.0%	60.0%	20.0%	-9.5%
Camas	50.0%	20.0%	50.0%	66.7%	0.0%	-100.0%	41.1%
Clark	60.0%	100.0%	61.5%	40.0%	83.3%	108.3%	-2.3%
Custer	37.5%	52.6%	76.5%	90.0%	40.0%	-55.6%	34.4%
Lewis	57.1%	62.5%	76.2%	0.0%	66.7%	66.7%	-22.9%
Lincoln	36.4%	90.9%	54.6%	52.2%	44.4%	-14.8%	35.2%
Oneida	64.0%	55.2%	40.0%	58.3%	70.8%	21.4%	1.5%
Statewide Average	**67.6%**	**72.1%**	**72.2%**	**73.5%**	**72.3%**	**-1.7%**	**2.9%**

Child Safety Seat Usage by Age Groups

The child safety seat law was upgraded in 2005 to include all children under the age of 7 years old. The law took effect July 1, 2005. Prior to that, Idaho Code required every child, under the age of four, and weighing less than 40 pounds be restrained in a car safety seat that meets the federal standards when traveling in a non-commercial motor vehicle manufactured with seat belts after January 1, 1966.

Figure 14
Child Safety Seat Usage by Age Group in Crashes: 1998 - 2007



The change in the child safety seat law increased usage among the 4 to 6 year old age group by 16 percentage points in the last half of 2005. Increased publicity of the law change also seemed to have an effect on the 0 to 3 year old age group, increasing child safety seat usage by 5 percentage points.

While child safety seat usage continues to increase for the 4-6 year old age group, usage among the 0-3 year old age groups appears to have topped off.

Child Safety Seat – Self-Reported Usage

Table 32 shows self-reported child safety seat use for children in passenger cars, pickups, sport utility vehicles, and vans from 2003 to 2007. The higher numbers of children and lower percentage usage in 2005 is due to changing the criteria for examining child safety seat use to include children ages 4 through 6 years old.

Table 32
Self-Reported Child Safety Seat Use by Injury Type: 2003-2007
Under Age 4 (through 2004) and Under Age 7 (2005 and after)
in Passenger Cars, Pickups, Sport Utility Vehicles, and Vans

Injury Type	2003	2004	2005	2006	2007	Change 2006-2007	Avg. Change 2003-2006
Fatalities							
Restrained	3	6	5	3	4	33.3%	14.4%
Unrestrained	2	1	0	0	2	200.0%	-50.0%
Serious Injuries							
Restrained	13	3	17	7	15	114.3%	110.3%
Unrestrained	3	5	19	12	10	-16.7%	103.3%
Visible Injuries							
Restrained	30	39	51	63	44	-30.2%	28.1%
Unrestrained	19	12	39	45	40	-11.1%	67.8%
Possible Injuries							
Restrained	162	182	204	217	199	-8.3%	10.3%
Unrestrained	49	30	122	71	77	8.5%	75.4%
No Injuries							
Restrained	1,777	1,889	2,449	2,175	2,522	16.0%	8.3%
Unrestrained	283	259	932	627	649	3.5%	72.9%
Total Restrained	1,843	2,119	2,727	2,466	2,785	12.9%	11.4%
Total Unrestrained	296	319	1,119	771	788	2.2%	75.8%
% of Children Restrained	86.2%	86.9%	70.9%	76.2%	77.9%	2.3%	-3.4%

The National Highway Traffic Safety Administration estimates child safety seats are 69% effective in preventing fatalities and serious injuries. By this estimate we can deduce that a child safety seats saved 6 lives in 2007. Additionally, 22 serious injuries were prevented and 7 of the 10 unrestrained serious injuries may have been prevented if they had all been properly restrained.